

REMARKS***Summary of the Amendment***

Upon consideration of the instant response, claims 85 - 131 will remain pending and under consideration by the Examiner.

Summary of the Official Action

In the instant non-final Office Action, the Examiner has indicated that claims 107 – 110 are allowed and that claims 93 – 97, 111, 112, 126, and 131 contain allowable subject matter and would be allowable if presented in an independent form that include all of the features of its base claim and any intervening claim. The Examiner has rejected claims 85 – 92, 98 – 106, 113 – 125, and 127 – 130 over the art of record. By the present remarks, Applicants submit that the rejections have been overcome, and respectfully request reconsideration of the outstanding Office Action and allowance of the present application.

Acknowledgment of Allowable Subject Matter

Applicants gratefully acknowledge the Examiner's indication that claims 107 – 110 are allowed, and further acknowledge that claims 93 – 97, 111, 112, 126, and 131 contain allowable subject matter, such that these would be allowable if presented in independent form to include all of the features of its base claim and any intervening claims.

Applicants, while noting that none of these claims are currently presented in independent form, reserve the right to present any or all of these claims in independent and allowable form in a subsequent communication to the United States Patent and Trademark Office.

Traversal of Rejection Under 35 U.S.C. §103(a)

Applicants traverse the rejection of claims 85 – 92, 98 – 106, 113 – 125, and 127 – 130 under 35 U.S.C. § 103(a) as being unpatentable over HALMSCHLAGER et al. (European Patent Application No. 0 933 473) in view of BUBIK et al. (U.S. Patent No. 4,417,950) [hereinafter “BUBIK”] or ARMSTRONG et al. (U.S. Patent No. 4,425,187) [hereinafter “ARMSTRONG”]. The Examiner asserts that HALMSCHLAGER shows the recited features with the exception of guiding the wires at an upward angle with an upper vortex of the second deflection roll being higher than a lower vertex of the first deflection roll. However, the Examiner asserts that, as BUBIK shows an upward guiding of the wires, it would have been obvious to modify HALMSCHLAGER to utilize the same arrangement. The Examiner has also indicated that the disclosure of ARMSTRONG supports the asserted modification.

Applicants independent claim 85 recites, *inter alia*, in a region of at least one separating element, one of the two wires belts is arranged to be led away from the forming fibrous web and the other of the two wire belts, a second deflection device having an upper vertex is positioned *after* the separating device and *structured and arranged to deflect the other wire belt* that carries the forming fibrous web, and *after the first deflection device, the two wire belts are arranged to run upward* at an angle relative to an imaginary second horizontal plane such that the upper vertex of the second deflection device is located above the lower vertex of the first deflection device. Further, Applicants’ independent claim 130 recites, *inter alia*, guiding the forming fibrous web and the two endless wire belts over the

lower vertex of the first deflection device, after the first deflection device, guiding the *two endless wire belts to run upward* at an angle to the horizontal reference, such that the lower vertex of the first deflection device is located below the upper vertex of the second deflection device, and guiding the second endless wire belt carrying the forming fibrous web *over the second deflection device*. Applicants submit that no proper combination of the applied art teaches at least the above-noted combination of features.

Applicants note that this rejection has been previously presented by the Examiner (albeit including the document to Kankanpaa), and addressed by Applicants. While acknowledging that the claims have been modified, Applicants submit that, notwithstanding the modified claims, their previous position that the art of record (including ARMSTRONG) fails to provide the requisite motivation or rationale for combining HALMSCHLAGER and BUBIK in the manner asserted by the examiner.

Applicants note that HALMSCHLAGER discloses a twin wire former, but fails to provide any teaching or suggestion of a second deflection device located after the separating device that is arranged to deflect the second endless wire carrying the forming web, as recited in claim 85, and fails to teach or suggest guiding the second wire carrying the web over the second deflection element, as recited in claim 130. Instead, HALMSCHLAGER discloses a suction pick-up roll to remove the web from passing wire 12 (see Figure 5). There is no disclosure in HALMSCHLAGER that wire 12 is deflected over suction roll 8.

Moreover, in contrast to the construction of HALMSCHLAGER's twin wire former, BUBIK discloses a structurally distinctive former in which an upper wire is pivotably

mounted to open and close contact with the lower wire. While Figure 5 of BUBIK arguably shows separated and upwardly guided wires guided over a deflection roll, Applicants note that BUBIK fails to provide any teaching or suggestion of any benefits that are achieved through this arrangement, nor is there any teaching or suggestion of any problem in the art this is addressed by the particular arrangement.

Moreover, Applicants note that BUBIK provides no teaching or suggestion to one ordinarily skilled in the art that it would have been obvious to modify HALMSCHLAGER to include such an arrangement. In particular, Applicants note that it is not apparent from the HALMSCHLAGER device how or why the pivoting upper wire assembly of BUBIK would be utilized by HALMSCHLAGER.

In establishing a *prima facie* case of obviousness under 35 U.S.C. § 103, it is incumbent upon the Examiner to provide a reason *why* one of ordinary skill in the art would have found it obvious to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. See *Ex parte Clapp*, 227 USPQ 972 (B.P.A.I. 1985) To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from Applicant's disclosure. See, for example, *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988).

As noted above, HALMSCHLAGER and BUBIK are directed to different former arrangements (twin wire former vs. fourdiner former) that operate in different manners. Moreover, neither document teaches or suggests modifying the structure or operation of

HALMSCHLAGER in the manner asserted by the Examiner, i.e., to additionally include the identified structure of BUBIK.

In this regard, while Applicants acknowledge that BUBIK shows upwardly guided wires, Applicants note that BUBIK fails to provide any teaching that this specific arrangement, in and of itself, provides advantageous results and/or that this arrangement would provide similar benefits in other formers, including formers that are structurally and operationally different than that of BUBIK. In other words, Applicants submit that the mere fact that BUBIK shows an arrangement of elements recited in the pending claims is not a reason that one ordinarily skilled in the art would modify the arrangement of HALMSCHLAGER in the manner asserted by the Examiner.

Further, Applicants note that, in addition to showing the recited arrangement of elements, the applied art must also provide the necessary motivation or rationale for modifying/combining the art of record in the manner asserted by the Examiner. Specifically, Applicants note that BUBIK does not disclose or suggest any advantages achieved as a result of the upwardly guided wires that would provide corresponding benefits in a former such as HALMSCHLAGER.

Because the art of record fails to provide any reasonable explanation why one ordinarily skilled in the art would utilize such an arrangement, and/or fails to disclose or suggest the problems that such an arrangement would address, Applicants submit that the art of record fails to provide the requisite motivation or rationale as to *why* one ordinarily skilled in the art would modify HALMSCHLAGER in the manner asserted by the Examiner. That

is, Applicants submit that because the Examiner has not set forth an articulable reason found in the art of record for modifying HALMSCHLAGER in the manner asserted by the Examiner, the instant rejection has no basis in the art of record, such that the rejection is improper and should be withdrawn.

Rejections based on 35 U.S.C. §103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The Examiner has the initial duty of supplying the factual basis for the rejection and may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis. *See In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 177 (CCPA 1967). As stated in *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-313 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984):

[t]o imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.

Applicants submit that the only reason to combine the teachings of the applied references in the manner proposed by the Examiner is the result of a review of Applicants' disclosure and the application impermissible hindsight.

In particular, Applicants submit that, because the formers of the applied art are structurally and operationally distinct from each other, the art of record fails to provide any showing that the use of the BUBIK arrangement, or any portion thereof, would have any utility at all in HALMSCHLAGER. In this regard, Applicants note that initial dewatering is

performed differently in each document, i.e., BUBIK provides significant dewatering prior to pressing the material suspension between two wire, whereas HALMSCHLAGER's initial dewatering is while the suspension is between the two wires. Because of these and other differences in structure and operation of the subject formers of HALMSCHLAGER and BUBIK, Applicants submit that it is not apparent that, if modified in the manner asserted by the Examiner, HALMSCHLAGER would continue to operate in its intended manner, especially since HALMSCHLAGER requires a forming shoe (not utilized by BUBIK) as well as forming strips (not utilized by BUBIK) and suction after the first deflection device, whereas BUBIK requires only a catch basin.

Thus, Applicants submit that it is apparent that the asserted combination would prevent HALMSCHLAGER from operating in its intended manner, or so materially change BUBIK, such that the modification would be based, not upon the teaching of BUBIK, but upon Applicants' disclosure and the application of impermissible hindsight.

Moreover, Applicants note that, while disclosing formers that are structurally distinct from both HALMSCHLAGER and BUBIK, ARMSTRONG fails to teach or suggest the necessary motivation or rationale to modify HALMSCHLAGER in the manner asserted by the Examiner. In this regard, even assuming, *arguendo*, that the benefits of the arrangements of BUBIK and ARMSTRONG were expressly disclosed (which Applicants submit they are not), Applicants submit that the art of record fails to provide any teaching or suggestion that HALMSCHLAGER would enjoy a corresponding benefit through modification in the manner asserted by the Examiner, and certainly fails to show that such a modification would

have been obvious.

Accordingly, Applicants submit that the asserted rejection of independent claim 28 is improper and should be withdrawn.

Further, Applicants submit that claims 86 – 92, 98 – 106, 113 – 125, and 127 – 129 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicants submit that no proper combination of HALMSCHLAGER in view of BUBIK, and ARMSTRONG teaches or suggests the combination of features recited in these dependent claims. In particular, Applicants submit that no proper combination of the applied art teaches or suggests, *inter alia*, said flowbox is positioned at an angle oriented downward relative to the imaginary first horizontal plane, as recited in claim 86; said dewatering element is composed of a rotating forming roll, as recited in claim 87; said upper vertex of said second deflection device is located at least 50 mm above said lower vertex of said first deflection device, as recited in claim 88; said upper vertex is located at least 100 mm above said lower vertex, as recited in claim 89; said upper vertex is located at least 200 mm above said lower vertex, as recited in claim 90; the angle at which said flowbox is positioned is between 0° and 45°, as recited in claim 91; the angle at which the flowbox is positioned is between 0° and 30°, as recited in claim 92; the angle at which said two wire belts run upward in relation to the imaginary second horizontal plane after said first deflection device is between 10° and 90°, as recited in claim 98; the angle at which the two wire belts run upward after said first deflection device is between 25° and 40°, as recited in claim 99; said

additional dewatering elements comprise isobaric dewatering elements, and said isobaric dewatering elements are arranged so that the forming fibrous web, which is enclosed between said two wire belts, are guided over said isobaric dewatering elements, as recited in claim 100; said isobaric dewatering elements comprise at least one stationary isobaric dewatering element that is arranged on said one wire belt, and at least one isobaric dewatering element is arranged on said other wire belt and at least one of said isobaric dewatering elements is resiliently set against at least one of said wire belts by a selectable force, as recited in claim 101; said isobaric dewatering elements comprise plates or plate segments, as recited in claim 102; further comprising at least one flat suction element arranged after said separating device, which acts on said wire belt carrying the forming fibrous web, as recited in claim 103; at said second deflection device, deflection of said wire belt is carried out in such a way that said wire belt subsequently runs downward at an angle less than 60° relative to an imaginary second vertical plane, as recited in claim 104; at said second deflection device, said wire subsequently runs downward at an angle less than 40° relative to the imaginary second vertical plane, as recited in claim 105; at said second deflection device, said wire substantially runs downward at an angle less than 25° , as recited in claim 106; said second deflection device comprises a suction roll or one of a shoe with foils or a shoe with foils and applied vacuum, as recited in claim 113; a distance between said lower vertex of said first deflection device and said upper vertex of said second deflection device is between 1 and 8 m, as recited in claim 114; the distance between the lower vertex and upper vertex is between 3 and 6 m, as recited in claim 115; said first deflection device comprises one of a closed roll,

an open roll, and an open roll with an applied vacuum, as recited in claim 116; said separating device comprises at least one of a suction separator and a vacuum shoe, as recited in claim 117; said dewatering device comprises forming roll having a diameter greater than 1200 mm, as recited in claim 118; said forming roll has a diameter greater than 1635 mm, as recited in claim 119; said forming roll has a diameter greater than 1760 mm, as recited in claim 120; said forming roll has a dewatering capacity of at least 50% of the total dewatering capacity of the twin-wire former, as recited in claim 121; the dewatering capacity of said forming roll is at least 65%, as recited in claim 122; said forming roll comprises an open forming roll, as recited in claim 123; said open forming roll is closed by one of a grill or honeycomb structure, as recited in claim 124; said open forming roll comprises a suction roll, as recited in claim 125; an overall height of said twin-wire former is between 2 and 8 m, as recited in claim 127; said overall height is between 3 and 6 m, as recited in claim 128; a process of forming the fibrous web in the twin-wire former according to recited twin wire former, as recited in claim 129.

Accordingly, Applicants request that the Examiner reconsider and withdraw the rejection of claims 85 – 92, 98 – 106, 113 – 125, and 127 – 130 under 35 U.S.C. § 103(a) and indicate that these claims are allowable.

Application is Allowable

Thus, Applicants respectfully submit that each and every pending claim of the present invention meets the requirements for patentability under 35 U.S.C. §§ 102 and 103, and respectfully request the Examiner to indicate allowance of each and every pending claim of

the present invention.

Authorization to Charge Deposit Account

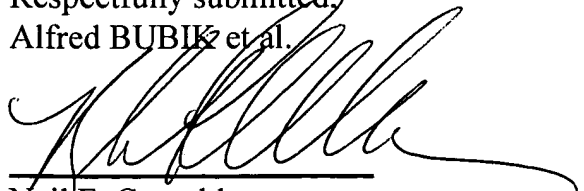
The Commissioner is authorized to charge to Deposit Account No. 19 - 0089 any necessary fees, including any extensions of time fees required to place the application in condition for allowance by Examiner's Amendment, in order to maintain pendency of this application.

CONCLUSION

In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious the Applicants' invention, as recited in each of claims 85 - 131. The applied references of record have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.

Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

Respectfully submitted,
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